

Owner's Manual



ENIGMAcouSTICS

Soprano

Electrostatic Super Tweeter

RTIC tweeter

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Heed all warnings.
3. Do not use this apparatus near water, high humid environment.
4. The product is designed for home audio system only.
5. Clean only with soft, dry cloth.
6. Install the unit on stable support and out of reach of children.
7. Do not install near any heat sources such as under direct sunlight, radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. Unplug this apparatus during lightning storms or when unused for long periods of time.
9. Refer all servicing to qualified service personnel.
Servicing is required when the apparatus has been damaged in any way.,.

Service

- Do not dismantle the unit. There are no user-serviceable parts inside.
- All service must be performed by qualified personnel

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Introduction

Sopranino by ENIGMAcoustics is the world's first super tweeter based on the one-of-a-kind self-biased (passive) electrostatic loudspeaker (SBESL™) technology. Sopranino is designed by calibre of industrial design and acoustic engineering with precision handcrafted components to complement your exquisite loudspeaker system. Before removing from the case and installation, please take time to read these instructions for proper setup, prevention of damages to the unit and methods to achieve the ultimate listening experience. The Sopranino super tweeters are designed to provide the extended high frequency response demanded by modern high-resolution music sources. Your main loudspeakers still provide the core of the music, but are seamlessly complemented by Sopranino with the extremely high frequencies.

Music passages contain higher harmonics and fast transient

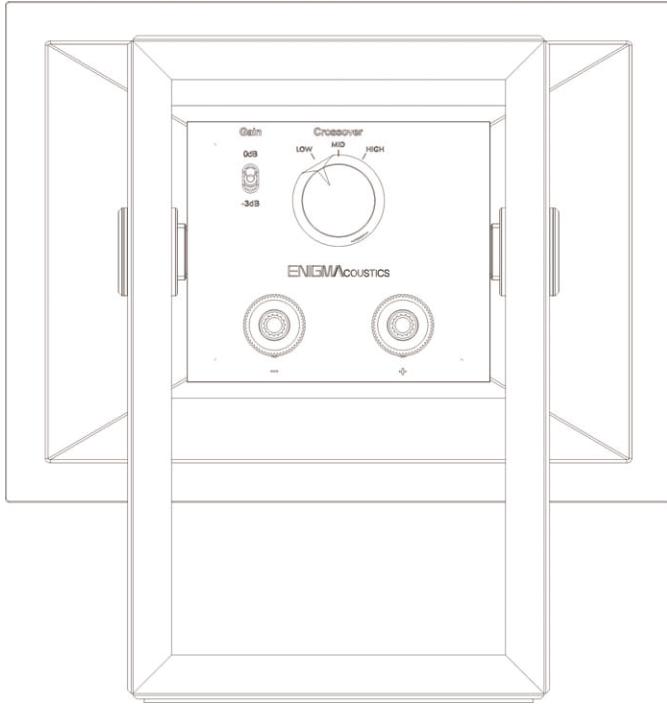
information, beyond the range of human hearing for pure tones. In order for music to be accurately reproduced, it is essential to accurately preserve this information. Users will discover Sopranino's ease in performing compatibly with a broad range of hi-end quality loudspeaker systems. Adjustments are provided with carefully pre-selected crossover frequencies and levels to enable flexible matching

Content of Package

- 2 x Sopranino SuperTweeter units
- 1 x owner's manual
- 1 x Wooden package box (always keep for future use)
- 2 x Handling gloves

Overview

Back panel



1. Gain

0dB: No attenuation

-3dB: Attenuate input power by 3dB (half power)

2. Crossover Frequency:

LOW: Cut off input frequency at lower crossover point

MID: Cut off input frequency at middle crossover point

HIGH: Cut off input frequency at higher crossover point

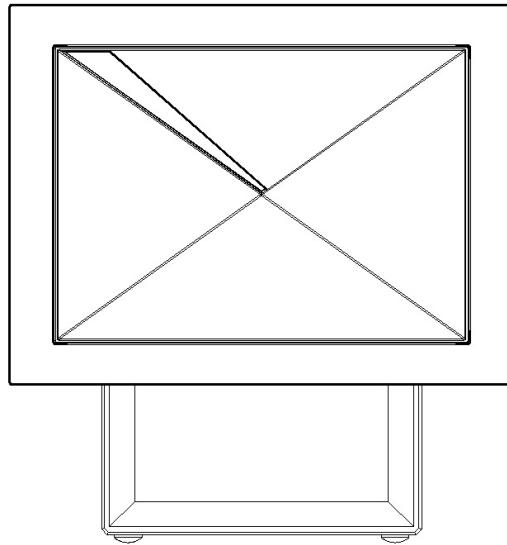
3. Speaker terminals:

+: Parallel connection to main speakers' positive (+) terminal

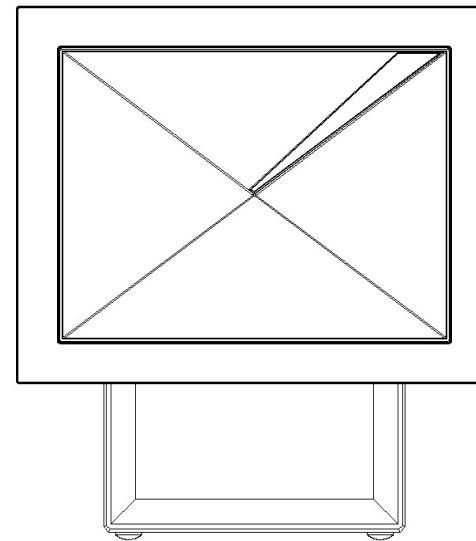
--: Parallel connection to main speakers' negative (-) terminal

Front View

Left Channel



Right Channel



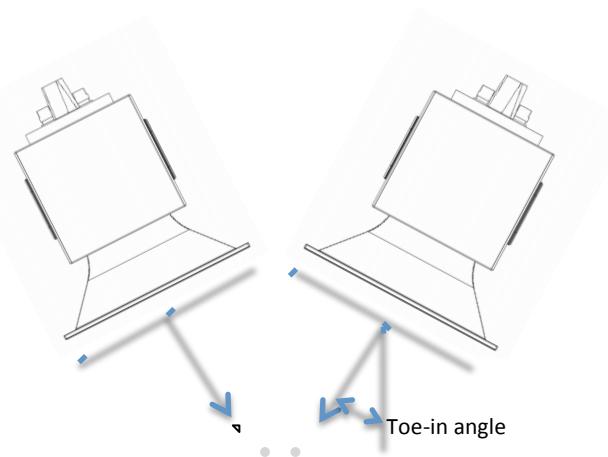
The left and right channels of Soprano are fully symmetrical design for aesthetic and user friendly considerations.

Positioning

Positioning is vital to Sopranino super tweeter's performance for it is dealing with the most delicate and sensitive frequency range. A minor shift of location may lead to dramatic change in audition. Users are encouraged to take times on trial of positioning for optimal performance

1. Place Sopranino on a firm and steady surface.
2. Aim speakers a little toe-in toward the listener by rotating horizontally; A wider angle could have better solid image; while narrower angle tends to have bigger sound stage
3. Regarding height of positioning, a general rule of thumb is to place Sopranino higher rather than lower, for example on top of your speaker cabinet with flattop. It can help gain bigger soundstage.
4. In case the main speakers are extremely tall, it is advised to use a speaker stand and place Sopranino a just above the usual height of listeners' ears.

5. Forward or backward? When Sopranino placed relatively forward, it tends to have forward image, for example the vocalist may appear to be closer. Conversely, it tends to produce a more backward image, for example singer is distant, whereas the same vocalist may appear to be further away when Sopranino is placed further back



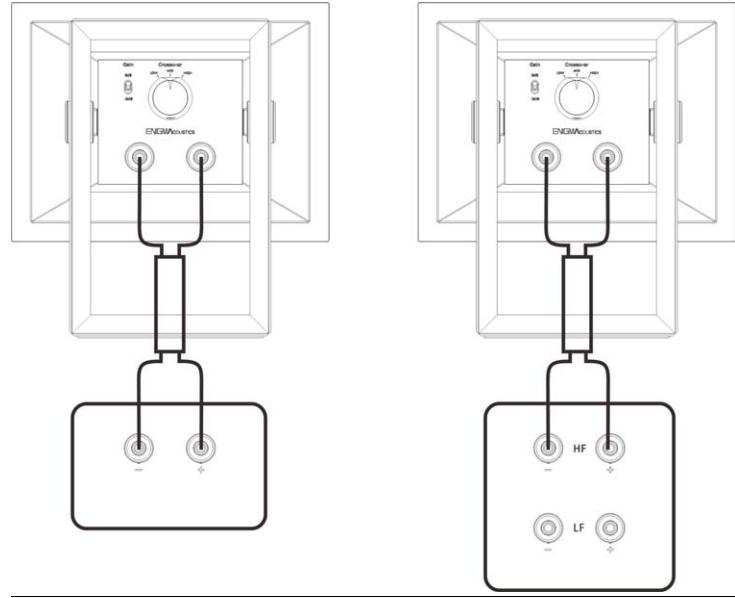
Connecting

NOTICE: Always turn off the amplifiers and other equipment when installing or uninstalling the devices.

The super tweeters should be connected parallel with your main speakers, positive (red) to positive and negative (black) to negative. Typical wiring:

- A. Typical single-wired installation. The SuperTweeter is simply connected across your speaker terminals.
- B. Bi-wiring installation. The SuperTweeter is connected across the HF terminals on your loudspeaker.

For optimum performance, only use high quality audio grade cable.



Adjustment and tuning

Crossing over with main loudspeakers

The **Sopranino** is designed for reproduction of very high frequency range of music. The Sopranino is equipped with a carefully designed filter to keep out the unwanted low frequency signals from entering the devices.

The crossover switch is preset to the following crossover frequency

| Crossover | Effect |
|---|--------------------------------|
| LOW | Cut off frequency below 8K Hz |
| MID (Recommended for initial setup) | Cut off frequency below 10K Hz |
| HIGH | Cut off frequency below 12K Hz |

Matching the main loudspeakers

The Sopranino is designed with a nominal sensitivity 90dB at 2.82V input. It is compatible with most recently developed high-resolution loudspeaker system. In case your speakers are of lower sensitivity, bookshelf monitors for example. It is advised to switch the **GAIN** switch to **-3dB** position for matching. After extensive system verification and consideration regarding characteristics of our electrostatic tweeter, we recommended matching your main system by the concept of spectral energy instead of sensitivity. If a system demands more high frequency energy, you may lower the crossover frequency (more music power into Sopranino). If a system is overloaded with high frequency energy, it is advised to raise the crossover frequency (fewer music power into Sopranino).

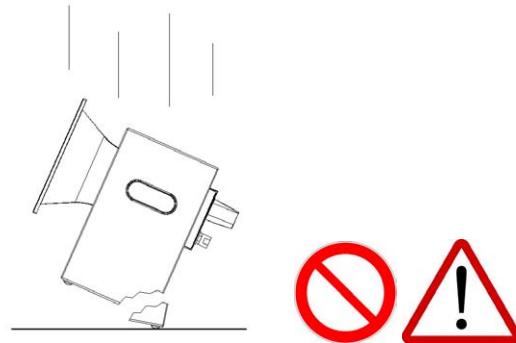
Troubleshooting

| Problem | Possible cause | Action |
|-----------------------|-----------------------|--|
| Power on but no sound | No signal from source | Check your amplifier output and cable connection |
| | Speaker damaged | Swap speakers to check if the problem is caused by speaker failure. If yes, contact local service |

Care and Maintenance

Components of the highest quality are used in **Sopranino**.

This assures years of trouble free operation. However, precautions should be taken under any circumstances.



Cleaning and Handling

NOTICE: Do not try to disassemble the unit. It is equipped with the delicate NanoFilm ESL tweeter and firmly attached to the main housing. It will be damaged if removed from the main housing.

The cabinet of Sopranino is made from high quality aerodynamic grade aluminum carefully anodized and brushed for its finish. To clean the cabinet uses a mild moistened cloth only.

The stand of Sopranino is made of highest grade white or gray glass, though tempered, it needs extra care when handling and placement.

Warranty

The warranty only covers faults or defects in material and production. Damage caused as a result of abuse, misuse or defective associated electronics is not covered by the warranty. All warranty claims must be accompanied by a copy of the original purchase warranty in the back of this manual and are only valid in the country or market of original purchase and distribution, should any warranty service be required.

Our speakers are built to a high standard and can last decade if used or handled in accordance with instructions, common hi-end audio etiquette and proper care, and not being repaired or tampered with by anyone other than ENIGMAcoustics. Keep in mind when compare with other similar products, the Sopranino uses relatively small amount of electricity. Also, when operating in a high humidity region we always recommend the use of dehumidifiers, air-conditioners, and humidity measuring devices to prevent loss of high frequency and to ensure state-of-the-art performances.

Technical Specifications

| | |
|-------------------------------|-----------------------------|
| System | Electrostatic super tweeter |
| Frequency Response (+/- 3 dB) | 8 kHz – 40 kHz |
| Sensitivity (2.82V on axis) | 90 dB |
| Recommended power | 50 W |
| Crossover Frequency | 8/10/12 kHz |
| Crossover Slope | 12db/Oct |
| Weight (net/shipping) | 2.7/10.4 (Kg) |
| Dimensions (W x H x D) | 181 X 193 x 207 (mm) |



Serial No:



Model:

Name:

Address:

Date of Purchase: _____

ENIGMAcoustics

Warranty Card

Sales:

Store Address:

Sopranino

Electrostatic SuperTweeter